

REMARKS

Reconsideration of the present application is respectfully requested.

Claim 18 has been amended to recite that at least one of the upper and lower faces includes four corner regions which include two diagonally opposed corner regions that are raised with respect to the remainder of the at least one of the upper and lower faces. The "remainder" includes a center region and two other diagonally opposed corner regions of the at least one upper and lower face. Each of the raised corner regions includes a "relief" face (e.g., see the relief face designated 8a in attached replacement sheet depicting Fig. 5). That relief face extends to a respective side face 4 to form a raised cutting edge at a transition thereof (e.g., see the cutting edge in Fig. 5).

Hessman et al. does not show raised corner regions as defined by the present claims. The corner regions of the Hessman et al. inserts may be raised with respect to the adjacent portions of the cutting edges and may also be raised with respect to the chip-forming structure behind the cutting edge. However, the corner regions are not raised with respect to the remainder of the upper and/or lower surfaces, in particular the central portion of said surfaces, which in all embodiments are substantially higher than the raised corner region (see, in particular Fig. 5 showing an enlarged view along a section through a corner region).

Further, it is clear that with such an insert the side surfaces can never act as a rake surface because this would result in the upper and/or lower faces being relief surfaces and in that case the raised central portions would prevent the cutting edge from engaging the workpiece to be cut. Moreover, the design of the Hessman et al. insert without any hole for fixing requires clamping means to engage the insert from the upper and/or lower surfaces which again would prevent the side surfaces from acting as rake surfaces and the upper and/or lower face acting as relief surfaces. Regarding the allegation made in the Official Action that Hessman et al. discloses in column 2, lines 50-53 that the side surfaces are defining a rake face of the cutting bit, it appears that the rake angles being

referred to and shown in Figs. 5 and 7 clearly show that face 18 and the adjacent chip-breaker structure (as for instance defined by face 16) are designed to be rake faces, and that the side faces, extending as a vertical line downwardly from the cutting edge 19 as shown in Figs. 5-7 of Hessman et al., are necessarily relief surfaces.

As regards the Byström et al. reference, even assuming that Byström et al. discloses a cutting insert for milling and having a generally cuboidal body, Byström et al. does not show raised corner regions in the meaning of the present claim. The raised structures on the upper face of a cutting insert as shown in Fig. 7 by Byström et al. are just chip breakers arranged on the upper face which is thus forming a rake surface. From the design as shown in Fig. 7, it is apparent to a skilled person that the side surfaces can never act as rake surfaces because the raised structures on the upper face (which then would necessarily be a relief surface) would prevent adjacent cutting edges from getting in contact with the workpiece at all.

In particular, those raised structures are definitely not forming any cutting edges, because they are simply not intersecting with the side surfaces and, of course, the shape of the raised portions is never designed to define any cutting edges. It is essential for the present invention that the raised corner regions on the upper/lower face are forming cutting edges at the intersection with the side surfaces. Only then, will it be possible that the side surfaces can act as rake surfaces with respect to the cutting edges formed with the raised portions.

Since generic claim 18 is neither anticipated nor rendered obvious by the disclosures of Hessman et al. or Byström et al., it is submitted that claim 18 and all claims dependent therefrom are in condition for allowance.

Claim 31 has been amended to incorporate the same amendments made in connection with claim 18. Accordingly, it is submitted that the rejection of claim 31 based upon Hessman et al. in view of Erkfritz has been obviated.

In addition, claim 31 has been amended to recite that the cutting bits are mounted in respective one of the seats "in direct engagement with seat-forming

surfaces of the disc". It is noted that with regard to Erkfritz, the seats for the respective disc-milling cutters are not formed directly in the body of the cutter, but rather are formed on cartridges 75, 76, 77 and 128, respectively, which are to be mounted individually in the cutter body. Accordingly, the cutter bits will not be indirect engagement with seat-forming surfaces of the body as recited in claim 31.

For the above reasons, it is submitted that claim 31 is in condition for allowance.

Claim 32 (which depends from claim 31) has been written in independent form as new claim 39, wherein the only difference is that the term "diametrically" found in original claim 31 has been changed to -- diagonally -- because it is felt that the term diagonally is more appropriate in describing a non-circular cutting bit.

Claims 26 and 36 have been amended to overcome the respective indefiniteness rejections thereof. The specification has been amended to provide antecedent basis for language now employed in the claims, and it is submitted that the new language is readily apparent from the original specification.

Figures 2a, 2b and 5 have been amended mainly to depict additional reference numerals, and a new reference 8a which has now been used in the specification.

In light of the foregoing amendments, it is submitted that the present application is in condition for allowance.

Respectfully submitted,

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